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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,412	08/03/2000	Jeffrey Ronald King	IGB 1531	9598
25230	7590	02/09/2004	EXAMINER	
DARA L ONOFRIO ONOFRIO LAW 1133 BROADWAY SUITE 1600 NEW YORK, NY 10010			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/631,412

Applicant(s)

KING ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/30/03 & 10/26/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 19, 21-26, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 18, 20, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 10/26/03.

Claim Objections

2. Claim 17 is objected to because of the following informalities:

There is a period after "coating" in line 9 of claim 17. However, as required under MPEP 608.01(m), except for abbreviations, periods may not be used elsewhere in a claim except at the end of the claim. It is advised that the period in line 9 is deleted.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 17, 19, 21, 26, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Ichinose et al. (U.S. 6,550,909).

The rejection is adequately set forth in paragraph 5 of the office action mailed 6/23/03 and is incorporated here by reference.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose et al. (U.S. 6,550,909) in view of Shaw-Klein et al. (U.S. 6,147,139).

The rejection is adequately set forth in paragraph 8 of the office action mailed 6/23/03 and is incorporated here by reference.

7. Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose et al. (U.S. 6,550,909) in view of Hirose et al. (U.S. 6,203,899).

The rejection is adequately set forth in paragraph 9 of the office action mailed 6/23/03 and is incorporated here by reference.

Response to Arguments

8. Applicants' arguments filed 9/30/03 and 10/26/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that:

(a) Ichinose et al. is not a relevant reference against the present claims given that there is no disclosure in Ichinose et al. that the printed image is substantially retained within the upper protective layer as required in the present claims.

(b) There is no motivation to combine Ichinose et al. with Shaw-Klein et al.

(c) There is no motivation to combine Ichinose et al. with Hirose et al.

With respect to argument (a), applicants argue that Ichinose et al. do not disclose that the printed image is substantially retained within the upper protective layer as required in the present claims but rather disclose that the ink is retained on the surface of the upper layer.

However, Ichinose et al. do not disclose that the pigment is retained on the surface of the upper layer. Rather, Ichinose et al. disclose that while the pigment is near the surface of the upper layer, it is still adsorbed. That is, the pigment is not on the surface of the upper layer but rather adsorbed in, but near the surface of, the upper layer. This can be seen from Figure 2 of Ichinose et al. where the pigment (200) is not on the surface of the upper layer but rather while the pigment is near the surface of the upper layer, the pigment is still contained within the upper layer.

The present claims require that the printed image is substantially retained within the upper protective layer. However, as set forth in the 1.132 declaration filed 6/6/03, paragraphs 6-7 and 9, "substantially retained in the upper protective layer" refers to ink which is completely absorbed in the surface of the material but is kept as close to the surface of the material as possible to maximize color gamut. This is the same situation in Ichinose et al. wherein while the pigment is adsorbed into the upper layer, it remains close to the surface.

Applicants also argue that col.7, lines 42-53 of Ichinose et al. teach away from allowing pigment particles to permeate the upper protective layer. However, this portion of Ichinose et al. does not teach against pigment particles permeating the upper layer. Rather, this portion teaches using resins of certain size in the upper layer so that when the pigment does permeate the upper

layer, the pigment will remain near the surface not in the interior of the upper layer. This is the same situation in the present invention wherein the ink is kept as close to the surface of the material as possible to maximize color gamut as described above.

In light of the above, it is the examiner's position that Ichinose et al. remains a relevant reference against the present claims.

With respect to argument (b), applicants argue that there is no motivation to combine Ichinose et al. with Shaw-Klein et al. given that Shaw-Klein et al. do not use a specially coated receiving medium, i.e. ink receiving medium comprising upper protective layer that contains polymer particles as required in the present claims and as disclosed by Ichinose et al.

It is noted that Ichinose et al. disclose heating printed image by passing recording image through laminator, however, there is no disclosure of inert sheet as presently claimed.

Shaw-Klein et al. teach that when laminating a printed image, the use of an inert sheet placed over the image prior to lamination ensures that there is no adhesion of the image to the heated rollers and thus results in an image with higher gloss.

Although there is no disclosure in Shaw-Klein et al. of recording medium as disclosed in Ichinose et al., note that Shaw-Klein et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of an inert sheet when laminating a recorded image, and in combination with the primary reference, discloses the presently claimed invention.

With respect to argument (c), applicants argue that there is no motivation to combine Ichinose et al. with Hirose et al. given that Hirose et al. disclose the use of binder in combination with fine cationic particles that are not required in Ichinose et al.

Ichinose et al. disclose ink jet printing method comprising printing onto recording medium that comprises substrate coated with ink receiving layer and upper layer comprising binder and polymeric particles. However, there is no disclosure of specific type of binder.

Hirose et al. disclose ink jet printing method comprising printing onto recording medium which comprises substrate coated with ink receiving layer and upper layer comprising binder such as polyvinyl alcohol as presently claimed. Thus, given that both Ichinose et al. and Hirose et al. are drawn to the same field of endeavor, given that Ichinose et al. and Hirose et al. both utilize binder in the upper layer of the recording medium, and given that Hirose et al. disclose specific types of binder already generically disclosed by Ichinose et al., it is the examiner's position that there is good motivation to combine the references.

While Hirose et al. do disclose the use of cationic particles in the upper layer, it is noted that the upper layer of Ichinose et al. is open to the inclusion of other ingredients and that there is nothing in Ichinose et al. to negate the use of such cationic particles in the upper layer.

Allowable Subject Matter

9. Claims 18, 20, and 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18 and 20 would be allowable if re-written in independent form given that the "closest" prior art Ichinose et al. (U.S. 6,550,909) does not disclose or suggest simultaneously coating the ink receiving layer and upper layer onto substrate or that the printed image is heated under pressure.

Claims 27-28 would be allowable if re-written in independent form given that Ichinose et al. disclose polymer particles which have average particle size of 0.1-5 μm which is outside the average diameter required in present claims 27 and 28.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

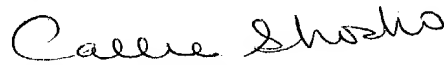
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
2/2/04